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DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. 2002-NE-01-AD; Amendment 39-12830; AD 2002-15-02]

RIN 2120-AA64

Airworthiness Directives; Hamilton Sundstrand Power Systems (Formerly Sundstrand Power Systems, Turbomach, and Solar) T-62T Series Auxiliary Power Units

AGENCY: Federal Aviation Administration, DOT.

ACTION: Final rule.

SUMMARY: This amendment adopts a new airworthiness directive (AD), that is applicable to Hamilton Sundstrand Power Systems (formerly Sundstrand Power Systems, Turbomach, and Solar) T-62T series auxiliary power units (APU's) with compressor wheel part number (P/N) 100636-1 installed. This amendment requires the replacement of compressor wheels P/N 100636-1. This amendment is prompted by a manufacturer's stress analysis that indicates stress levels high enough to initiate and drive crack growth in these compressor wheels. The actions specified by this AD are intended to mandate the replacement of the affected compressor wheels, which if not replaced, could result in uncontained compressor wheel failure and damage to the airplane.

DATES: Effective August 28, 2002.

ADDRESSES: The service information referenced in this AD may be obtained from Hamilton Sundstrand Power Systems, Technical Publications Department, P.O. Box 7002, Rockford, IL 61125-7002; telephone (815) 623-5983; fax (815) 966-8525. This information may be examined, by appointment, at the Federal Aviation Administration (FAA), New England Region, Office of the Regional Counsel, 12 New England Executive Park, Burlington, MA.

FOR FURTHER INFORMATION CONTACT: Roger Pesuit, Aerospace Engineer, Los Angeles Aircraft Certification Office, FAA, Transport Airplane Directorate, 3960 Paramount Blvd., Lakewood, CA 90712-4137; telephone (562) 627-5251, fax (562) 627-5210.

SUPPLEMENTARY INFORMATION: A proposal to amend part 39 of the Federal Aviation Regulations (14 CFR part 39) to include an AD that is applicable to Hamilton Sundstrand Power Systems (formerly Sundstrand Power Systems, Turbomach, and Solar) T-62T series APU's with compressor wheel P/N 100636-1 was published in the Federal Register on March 28, 2002 (67 FR 14889). That action proposed to mandate the replacement of the affected compressor wheels, which if not replaced, could result in uncontained compressor wheel failure and damage to the airplane.

Comments

Interested persons have been afforded an opportunity to participate in the making of this amendment. No comments were received on the proposal or the FAA's determination of the cost to the public. The FAA has determined that air safety and the public interest require the adoption of the rule as proposed.

Economic Analysis

There are approximately 492 Hamilton Sundstrand Power Systems (formerly Sundstrand Power systems, Turbomach, and Solar) models T-62T-2C, T-62T-25, T-62T-29, and T-62T-39 APU's of the affected design in the worldwide fleet. The FAA estimates that 337 APU's installed on aircraft of U.S. registry will be affected by this AD, that it will take approximately 40 work hours per APU to perform the required actions, and that the average labor rate is \$60 per work hour. Required parts will cost approximately \$16,799 per engine. Based on these figures, the total cost of the AD to U.S. operators is estimated to be \$ 6,470,063.

Regulatory Analysis

This final rule does not have federalism implications, as defined in Executive Order 13132, because it would not have a substantial direct effect on the States, on the relationship between the national government and the States, or on the distribution of power and responsibilities among the various levels of government. Accordingly, the FAA has not consulted with state authorities prior to publication of this final rule.

For the reasons discussed above, I certify that this action (1) is not a "significant regulatory action" under Executive Order 12866; (2) is not a "significant rule" under the DOT Regulatory Policies and Procedures (44 FR 11034, February 26, 1979); and (3) will not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act. A final evaluation has been prepared for this action and it is contained in the Rules Docket. A copy of it may be obtained by contacting the Rules Docket at the location provided under the caption ADDRESSES.

List of Subjects in 14 CFR Part 39

Air transportation, Aircraft, Aviation safety, Safety.

Adoption of the Amendment

Accordingly, pursuant to the authority delegated to me by the Administrator, the Federal Aviation Administration amends part 39 of the Federal Aviation Regulations (14 CFR part 39) as follows:

PART 39–AIRWORTHINESS DIRECTIVES

1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701.

Sec. 39.13 [Amended]

2. Section 39.13 is amended by adding a new airworthiness directive to read as follows:

AIRWORTHINESS DIRECTIVE



Aircraft Certification Service
Washington, DC

U.S. Department
of Transportation
**Federal Aviation
Administration**

We post ADs on the internet at "www.airweb.faa.gov/rg1"

The following Airworthiness Directive issued by the Federal Aviation Administration in accordance with the provisions of Title 14 of the Code of Federal Regulations (14 CFR) part 39, applies to an aircraft model of which our records indicate you may be the registered owner. Airworthiness Directives affect aviation safety and are regulations which require immediate attention. You are cautioned that no person may operate an aircraft to which an Airworthiness Directive applies, except in accordance with the requirements of the Airworthiness Directive (reference 14 CFR part 39, subpart 39.3).

2002-15-02 Hamilton Sundstrand Power Systems (formerly Sundstrand Power Systems, Turbomach, and Solar): Amendment 39-12830. Docket No. 2002-NE-01-AD.

Applicability

This airworthiness directive (AD) is applicable to Hamilton Sundstrand Power Systems (formerly Sundstrand Power Systems, Turbomach, and Solar) models T-62T-2C, T-62T-25, T-62T-29, and T-62T-39 auxiliary power units (APU's) that have compressor wheel part number (P/N) 100636-1 installed. These APU's are installed on, but not limited to, Fairchild FH-227, Dassault Falcon 20, Lockheed 1329 series (Jetstar), British Aerospace Jetstream 3101, Raytheon Aircraft HS125-600, -700, -800, and Sabreliner Corporation 60 and 80 airplanes, and Boeing Defense & Space Group 234 Series helicopters.

Note 1: This AD applies to each APU identified in the preceding applicability provision, regardless of whether it has been modified, altered, or repaired in the area subject to the requirements of this AD. For APU's that have been modified, altered, or repaired so that the performance of the requirements of this AD is affected, the owner/operator must request approval for an alternative method of compliance in accordance with paragraph (e) of this AD. The request should include an assessment of the effect of the modification, alteration, or repair on the unsafe condition addressed by this AD; and, if the unsafe condition has not been eliminated, the request should include specific proposed actions to address it.

Compliance

Compliance with this AD is required as indicated, unless already done.

To replace affected compressor wheels

P/N 100636-1, which if not replaced, could result in uncontained compressor wheel failure and damage to the airplane, do the following:

Cast Steel Compressor Wheel Replacement

(a) For compressor wheels, P/N 100636-1, made of cast steel, identifiable by a four-digit casting lot vendor identification number used as a prefix to the serial number, replace compressor wheels with compressor wheel P/N 4503164, 4504174, or M4504174 as follows:

(1) Replace cast steel compressor wheels with 2,350 or greater cycles-since-new (CSN) on the effective date of this AD within 250 cycles-in-service (CIS) after the effective date of this AD.

(2) Replace cast steel compressor wheels with less than 2,350 CSN on the effective date of this AD before accumulating 2,600 CSN.

Wrought Steel Compressor Wheel Replacement

(b) For compressor wheels, P/N 100636-1 made of wrought steel, identifiable by a serial number beginning with the letter W, replace compressor wheels with compressor wheel P/N 4503164, 4504174, or M4504174 as follows:

(1) Replace wrought steel compressor wheels with 3,600 or greater CSN on the effective date of this AD within 500 CIS after the effective date of this AD.

(2) Replace wrought steel compressor wheels with less than 3,600 CSN on the effective date of this AD before accumulating 4,100 CSN.

(c) Information on procedures for replacing compressor wheel P/N 100636-1 may be found in Hamilton Sundstrand Power Systems service bulletin No. SB-T-62T-49-148, Revision 1, dated December 20, 2001.

Reduced Life Limits

(d) This AD establishes new cyclic life limits for compressor wheels P/N 100636-1, of 2,600 CSN for cast steel compressor wheels and 4,100 CSN for wrought steel compressor wheels. Except as provided in paragraph (e) of this AD, no alternate life limits for these parts may be approved.

Alternative Methods of Compliance

(e) An alternative method of compliance or adjustment of the compliance time that provides an acceptable level of safety may be used if approved by the Manager, Los Angeles Aircraft Certification Office (ACO). Operators must submit their request through an appropriate FAA Principal Maintenance Inspector, who may add comments and then send it to the Manager, Los Angeles ACO.

Note 2: Information concerning the existence of approved alternative methods of compliance with this airworthiness directive, if any, may be obtained from the Los Angeles ACO.

Special Flight Permits

(f) Special flight permits may be issued in accordance with Secs. 21.197 and 21.199 of the Federal Aviation Regulations (14 CFR 21.197 and 21.199) to operate the aircraft to a location where the requirements of this AD can be done.

Effective Date

(g) This amendment becomes effective on August 28, 2002.

Issued in Burlington, Massachusetts, on July 15, 2002.

Jay J. Pardee,

Manager, Engine and Propeller Directorate, Aircraft Certification Service.

[FR Doc. 02-18482 Filed 7-23-02; 8:45 am]

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